RF 290.1075USN 7/8/04

In the Claims:

Amend the claims as follows:

5

10

15

25

1. (Currently amended) Method A method for sending messages over secure communication links in networks comprising at least a first terminal being able to change its method of network access and at least one other terminal with one or more possible intermediate computers between the first terminal and the other terminal performing network address and/cr other translations, a secure communication link being established between an initial network address of the first terminal and the address of the other terminal, the link defining at least the addresses of the two terminals, and performing encapsulation in said secure communication link to overcome network address and/or other translations made by said intermediate computers on the route, comprising: characterized by

- 2 -

a) the first terminal moving from said initial network address 20 to a new network address,

b) sending a request message using encapsulation from the

- first terminal to the other terminal to change said secure connection to be between the new address of the first terminal and the other terminal, the request also containing a description of the encapsulation method performed by the first terminal on the basis of which description the other terminal detects translations performed by said intermediate computers, c) the other terminal responding to the first terminal with a
- reply message with a description about translations made by 30 said possible intermediate computers between the new address of the first terminal and the other terminal and/or encapsulation methods supported by the other terminal, and d) thereafter sending the message from the first terminal to

the other terminal by using the information sent with said 35

reply.

30

- 2. (Currently amended) Method of claim 1, characterized in that, The method of claim 1 wherein the description of the message include source and/or destination addresses on the basis of which the receiving terminal detects address translations performed by intermediate computers.
- 3. (Currently amended) Method of claim 1, characterized in

 that The method of claim 1 wherein the description of the

 message includes information about encapsulation protocols, as
 well as source and destination TCP or UDP ports.
- 4. (Currently amended) Method of claim 3, characterized in

 that The method of claim 3 wherein the NAT traversal is
 performed by UDP encapsulation, TCP encapsulation and/or by

 some other another encapsulation.
- 5. (Currently amended) Method of any of claims 1-4,
 20 characterized in that The method of claim 1 wherein after
 receiving of the request message by said other terminal sent
 in step c), the other terminal determines by examining the
 request, which translations and/or encapsulations are required
 in the traffic between the first terminal and the other
 terminal.
 - 6. (Currently amended) Method of claim 5, characterized in that The method of claim 5 wherein the reply message of step c) contains information about the communication link to be used between the new address of the first terminal and said other terminal.
- 7. (Currently amended) Method of claim 6, c h a r a c t e r i z e c in that The method of claim 6 wherein the information about the communication link includes information about

10

15

20

25

30

35

whether NAT traversal and/or other encapsulation should be used.

- 8. (Currently amended) Method of any of claims 1-5, characterized in that The method of claim 1 wherein in step c) the first terminal compares the descriptions of the request respective reply messages and sends all subsequent messages from this new network address on the basis of the comparison telling what encapsulations, protocols and rules should be used in the further communication.
 - 9. (Currently amended) Method of any of claims 1 8, characterized in that The method of claim 1 wherein the secure communication link is formed by using the IPSec protocol.
- 10. (Currently amended) Method of claim 9, characterized in that The method of claim 9 wherein the message in step d) is sent by using IPSec and NAT traversal updated to the new network address of the first terminal.
 - 11. (Currently amended) Method of claims 7 or 8, characterized in that The method of claim 1 wherein the message in step d) is sent without NAT traversal in the communication link if on the basis of the comparison in claim 8, when the descriptions correspond to each other or if so informed by the other terminal in claim 7.
 - 12. (Currently amended) Method of any of claims 1-11, characterized in that The method of claim 1 wherein the secure connection is an IPSec SA.
- 13. (Currently amended) Method of claim 12, characterized in that for forming the IPSec SA, The method of claim 12 wherein a key exchange mechanism that passes through NAT is used when forming the IPSec SA.

14. (Currently amended) Method of claim 12, characterized in that The method of claim 12 wherein the key exchange protocol is IKE if when the NAT device supports the UDP protocol.

5

10

15

- 15. (Currently amended) Method of claim 14, characterized in that for forming the IPSec SA, The method of claim 14 wherein a key exchange mechanism is used when forming the IPSec SA and wherein several traversal mechanisms are used simultaneously to increase the chance that at least one of them pass through the NAT device.
- 16. (Currently amended) Method of claim 12, characterized in that for forming the IPSec SA, The method of claim 12 wherein a key exchange mechanism is performed when forming the IPSec SA in which a negotiation process is used to agree on protocols to be used in the further communication.
- 17. (Currently amended) Method of claim 12, c h a r a c t e r

 20 i z c d in that The method of claim 12 wherein for forming the

 IPSec SA, an encapsulation protocol is used in the key

 exchange mechanism when forming the IPSec SA.
- 18. (Currently amended) Method of any of claims 1 17, c h a

 25 racterized in that The method of claim 1 wherein the
 address of the other terminal is the end destination address
 of messages sent from the first terminal, in which case
 transport or tunnel mode is used in the IPSec communication.
- 19. (Currently amended) Method of any of claims 1-17, & h a r a c t; e r-i z e d in that The method of claim 1 wherein the destination address of the message is the address of a host which is not the other terminal, in which case tunnel mode or transport mode together with a tunnelling tunneling protocol is used in the IPSec communication.

20. (Currently amended) Method of any of claims 1 7, 9-19, characterized in that The method of claim 1 wherein several request messages of step b) are sent, each processed using a different traversal mechanism, where after the other terminal indicates in the reply which methods is to be used in the further-communication.

5